A 62-year-old woman was seen for an asymptomatic tumor that had arisen 3 months earlier in her right breast. Importantly in her past history she had had surgery 17 years earlier for an infiltrating ductal carcinoma in the same breast, undergoing mastectomy and lymphadenectomy followed by chemotherapy. A month before the tumor developed she had undergone prosthesis replacement plus autologous fat transfer from the abdomen. Physical examination revealed a hard (but not stony hard) mobile tumor in the lower outer quadrant. Dermatologic ultrasound showed a very well-defined anechoic lesion in the subcutaneous cellular tissue that had a spherical appearance in both the longitudinal and the transverse planes, with no vascular filling on Doppler (Fig. 1). The histologic diagnosis was encapsulated fat necrosis. Encapsulated fat necrosis is the final stage of fat necrosis, when it becomes separated from the viable tissue by a fibrous capsule. The most common sites are the lower extremities and the breast, after trauma. A number of ultrasound patterns of the nonencapsulated forms have been described, showing anechoic areas in the form of oil cysts. The image shown is fairly characteristic of encapsulated fat necrosis, though at this site and, in particular, with the past history of cancer, ultrasound should not substitute other additional tests, such as mammography and biopsy.

Figure 1 Abbreviations: Der, dermis; Ep, epidermis; Musc, muscle; P, prosthesis; SCT, subcutaneous cellular tissue.